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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,360

03/17/2004

Nobutomo Tanaka

F-8188

3806

28107

7590

11/02/2005

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EXAMINER

BLACKMAN, ROCHELLE ANN J

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,360

Applicant(s)

TANAKA ET AL.

Examiner

Rochelle Blackman

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase "parallel relation" in the limitation, "sliding means for sliding said projection optics means relative to said apparatus body in a parallel relation to an optical axis of said projection optics means" in claims 6, 7, and 9, renders the claim indefinite. It appears "sliding means" 18a slides "projection optics means" 8a relative to "apparatus body" 2a in a perpendicular relation and not a "parallel relation" to an optical axis of "projection optics means" 8a in FIG. 5. Left and right directions Aa and Ba and upward and downward directions Ca and Da are both directions that appear to be perpendicular to an optical axis of "projection optical means" 8a in FIG. 5.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (U.S. Patent No. 6,824,276) in view of Stanton (U.S. Patent No. 5,917,558).

Regarding claim 1, Kimura discloses a projector apparatus (see Figs. 1-11) comprising: a light source means (see 52 of Figs. 1 and 2) for outputting a white light; a digital micromirror device means (see col. 10, line 66 to col. 11, line 2) for receiving the primary-color lights and for reflecting lights for constituting a picture; a projection optics means (see 54 of Fig. 1 and 540 of Fig. 2) for passing the light from said digital micromirror device means to obtain a picture enlarged to a desired size; a shutter (see 60 of Fig. 2) disposed downstream of said projection optics means for blocking the light for projection passed through said projection optics means; a sensor means (see 22 and 70 of Fig. 1), attached to that surface of said shutter which blocks the light for projection, for detecting a color temperature of the light for projection; and a control means (see 20 of Fig. 1) for controlling a "color light optical separation system" (see 200 of Fig. 2) and said digital micromirror device means such that the light from said digital micromirror device means constitutes a predetermined picture in accordance with data for the picture and for performing, based on detection result from said sensor means, such a control that the color temperature of the light for projection is adjusted to a desired value.

Regarding claim 2, Kimura discloses wherein said shutter is supported by a casing (this is considered to be the apparatus, unit, or device that houses projector 10 of Figs. 1 and 2) constituting a body of said apparatus and arranged so as to block or

allow to pass the light for projection (see location of "shutter" 60 relative to "projection optics means" 54 or 540 in Figs. 1 and 2)

Regarding claim 3, Kimura disclose wherein said shutter is a cap (see location of "shutter" 60 in Figs. 1 and 2, "shutter" 60 is considered to be capable of protecting the "last-stage lens" of "projection optics means" 54 or 540 due to its location in Figs. 1 and 2) for protecting the last-stage lens of said projection optics means.

Kimura discloses using plurality of dichroic mirrors and a reflection mirror as a color light optical separation system in Fig. 2, but does not disclose a "color wheel means" for receiving the white light from said light source means to output a plurality of primary-color lights.

Stanton teaches providing a color wheel means (see 16 of FIG. 1) for receiving the white light from said light source means to output a plurality of primary-color lights.

It would have been obvious to one ordinary skill in the art at the time the invention to use a "color wheel means" in the "projector apparatus" of the Kimura reference, as taught by Stanton for the purpose of minimizing the number of individual parts used in the projector apparatus, thus making the body of the projector apparatus smaller and more compact.

Allowable Subject Matter

1. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. Claims 6-10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
3. The following is a statement of reasons for the indication of allowable subject matter:

Claims 4 and 5 have been found to be allowable because the prior art of record either alone or in combination neither discloses nor makes obvious the projector apparatus comprising a control means that is constructed to change an output level of the light for projection from said projection optics means from 100% to a level substantially equal to 0% in steps and to carry out the adjustment of color temperature at each output level, in combination with the other particular features recited in claim 1, in combination with the particular features recited in claims 1 and 2, and in combination of with the particular features recited in claims 1 and 3.

Claims 6-10 have been found to be allowable because the prior art of record either alone or in combination neither discloses nor makes obvious the projector apparatus comprising the particular feature of a follow-up means for sliding said sensor means, when said projection optics means is slid by said sliding means relative to said apparatus body, in such a manner that said sensor means follows said projection optics means to thereby enable said sensor means to detect the color temperature of the light

for projection from the sliding projection optics means, in combination with the other particular combination of features recited in each of claims 6, 7, and 10.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mukawa et al. (U.S. Patent Application Publication No. 2002/0154277), Image Display Device.

Mashitani et al. (U.S. Patent No. 6,710,920), Stereoscopic Display.

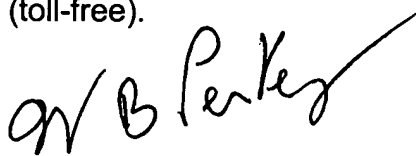
D'Alessio et al. (U.S. Patent Application Publication No. 2004/0196443), Method and System for Control of Display Lamp Illumination with Lens Cap Position.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "W B Perkey", with a long, sweeping horizontal stroke extending to the right.

William Perkey
Primary Examiner

RB